

Desk Instruction 4.1
“ORP Evaluation of Contractor Quarterly
Recurring Event Analysis Report”

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Revision 0

Approved by: _____

Date: _____

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1.0 Introduction

This handbook elaborates on the policy and procedures for evaluating Contractor Quarterly Recurring Event Analysis Reports submitted by the U.S. Department of Energy (DOE), Office of River Protection (ORP) prime contractors.

DOE M 231.1-2, “Occurrence Reporting and Processing of Operations Information,” sets forth the minimum set of occurrence reporting requirements for DOE Departmental Elements and contractors responsible for the management and operation of DOE-owned and DOE-leased facilities. These requirements include categorizing occurrences related to safety, environment, health, or operations (“Reportable Occurrences”); notifying DOE of these occurrences; and developing and submitting documented follow-up reports.

2.0 Expectations

The purpose of ORP reviewing and evaluating Contractor Quarterly Recurring Event Analysis Reports is to ensure the contractor submittals contain the analysis of occurrence-related data necessary to ensure that recurring events are identified, and, more importantly, that both DOE and DOE Contractors are focused on analyzing events of lower significance to prevent more serious events from occurring.

3.0 Application

A model for the performance analysis process is provided as Attachment 2 in DOE M 231.1-2. The model for performance analysis includes five basic steps: 1) gathering DOE Occurrence Reporting & Processing System (ORPS) data and site-specific data for non-reportable events, as applicable; 2) reviewing various elements and groupings of the data; 3) identifying potential areas of recurring problems; 4) analyzing potential areas for recurrence; and 5) documenting the results of the performance analysis activity, and, if any recurring problems are identified, submitting an occurrence report into the DOE ORPS database.

Results of the contractor quarterly Performance Analysis activity should be documented in a Performance Analysis Report. Attachment 7 in DOE M 231.1-2 contains the recommended report structure for reporting the results of the performance analysis activity. The ORP reviewer is expected to confirm that quarterly contractor Recurring Event Analysis Report submittals contain the elements and analyses outlined in DOE M 231.1-2.

4.0 Procedure and Process

The steps for ORPs review of contractor Recurring Event Analysis Report submittals is provided in the following steps.

Contractor submittals are due to ORP 15 days following the end of the quarter; verify receipt.

Evaluate the submittal to ensure it is documented in a Performance Analysis Report containing the elements found in Attachment 7 of DOE M 231.1-2, as illustrated below.

The Performance Analysis Report should contain the following information:

1. Executive Summary of Analysis Results;
2. Background;
 - Time period of data used in the analysis; and
 - Quantification of Events included in the analysis.
3. Analysis
 - Identification of Repetitive Groupings/Elements used to determine potential recurring problems;
 - Elements with a large concentration when compared to all others (list these elements, if any); and
 - Elements with a large concentration when compared to all others that were analyzed for recurring problems (list these elements, if any).
4. Conclusion
 - Identify New ORPS reports generated as a result of the review;
 - Identify any referenced ORPS reports used in determining your conclusions;
 - Include a conclusion statement that no recurring problems were noted, if appropriate.

Once the format is confirmed to be in accordance with Attachment 7 of DOE M 231.1-2, evaluate if the contractor has determined if there are recurring events that need to be addressed collectively in order to preclude more serious events from occurring.

The techniques shown below provide a framework to assist in making this determination.

1. Statistical Analysis.

Statistical analysis is a powerful tool for analyzing the data to determine Statistically Significant Trends both positive and negative. The use of control charts can show if the process is 'controlled' so that overreaction to single events can be avoided.

The use of a statistical analysis is best suited for those processes where there is an adequate number of events for each time period being considered and data is available for the last 12 months. If the mean of the number of events per time period is five or greater, the tests for statistical significance are meaningful. If the mean is between two and five events per time period, the statistical tests should be viewed as only a potential indicator. If the mean is below two events, control charts have little value in determining trends. Since control charts are being used to define statistical trends, there needs to be adequate data collected. Also, since many trends take several time periods to be revealed, the data should represent an extended period of time.

2. Distribution / Cross Cutting Issues / Drill Down

These terms all relate to looking at various combinations of the source data to determine if patterns emerge. Typically, the use of Pareto analysis can determine the major contributions and the distribution of the contributors. A limitation of this technique is that it needs to have a large enough data sample to allow for a meaningful analysis. In cases where the cause of a problem involves human performance, it is necessary to examine additional data to determine what caused the human performance problem.

3. Causal Analysis

The same techniques that are used to define the 'Cause' for a single event can be used similarly for groupings of events, such as when several dissimilar events have the same 'Cause.' This 'Cause' recurrence then becomes the problem being considered and the analysis is directed as to why the identified set of cause codes continued to appear.

5.0 Actions

If required by contract, i.e., for Bechtel National, Inc. Deliverable 1.8, prepare approval correspondence to be signed by the Contracting Officer's Representative.